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10/650,153	08/26/2003	Timothy J. Collins	CML01464M	7078

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EXAMINER
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ART UNIT	PAPER NUMBER
3685	

NOTIFICATION DATE	DELIVERY MODE
06/04/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/650,153	COLLINS ET AL.	
	Examiner	Art Unit	
	CHARLES C. AGWUMEZIE	3685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6,8,11 and 20-28* is/are pending in the application.

4a) Of the above claim(s) *15-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-6, 8, 11,and 20-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/10/06; 10/8/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgements

1. Applicants' amendment filed on March 4, 2009 is acknowledged. Accordingly claims 1, 5-6, 8, 11, and 19-28 remain pending.

Response to Arguments

2. Applicant's arguments filed March 4, 2009 have been fully considered but they are not persuasive.

3. With respect to **claim 1**, Applicant argues that while it was well known that a Public-key process could be used to verify a first number with a second public-key encrypted version of the first number, Applicant's claims state where these first and second numbers are located. Halperin puts a PK encryption of the serial number in the RFID label in both embodiments. Since Coppersmith simply teaches putting both numbers in the same place (on the label) Coppersmith adds nothing to Halperin. The teachings of Halperin and Coppersmith therefore do not combine to show applicant's invention. Neither Halperin nor Coppersmith do this, while at the same time using encryption to verify the serial number.

In response, Examiner respectfully disagrees with Applicant's characterization and submits that the combination of Halperin and Coppersmith do teach the Applicant's invention as shown in the rejection. According to Applicant's claims both the first number and the second number are on the item packaging except that the first number is read from the RFID tag. Halperin discloses the first number read from the RFID tag

but failed to explicitly disclose "utilizing a public-key cryptographic process and the first number to cryptographically verify the second number" Coppersmith discloses this limitation. For example, Coppersmith's claim 1, discloses that a second label associated with the product hidden from view containing a second encrypted version of said serial number using a second private key of a second private/public key pair …verifying a match to the said serial number..; col. 3, lines 30-60; col. 4, lines 1-35. Accordingly the combination of Halperin and Coppersmith do disclose the claimed invention.

4. With respect to **claim 11**, Applicant argues that claim 11 is nearly identical to claim 1 and the rejection is therefore overcome for the same reason.

In response, Examiner respectfully disagrees and submits that claim 11 is not patentable for the same reason as in claim 1.

5. With respect to **claims 6 and 21**, Applicant argues that these claims have two numbers in their first element and a third number in the second element and for these reasons claims 6 and 21 are patentable over the references of record.

In response, Examiner asserts that that the introduction of a third number constitutes a new matter as shown in the rejection below. Accordingly no merit is accorded new matter since the applicant argues an invention lacking support in the specification and based entirely on new matter.

6. With respect to **claims 5, 8, 19-20 and 22-23,** Applicant argues that these claims depend upon one of independent claims 1, 6, 11 and 21 and is therefore patentable inasmuch as the independent claims are patentable.

In response, Examiner respectfully disagrees and submits that claims 5, 8, 19-20 and 22-23 are neither patentable being dependent upon one of independent claims 1, 6, 11 and 21 nor for their own individual recited features.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. **Claims 6, 8, 21-27 and 28**, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as originally filed contains no support for **"determining a third number that is a cryptographic signature over the first and second numbers" (claim 6), "affixing the third number to either the product or the packaging associated with the product." (claim 6), reading a third number that is public-key signature over first and second numbers" (claim 21), utilizing a public-key cryptographic and the first and second numbers to cryptographically verify the third number."(claim 21)** There are new claims without support in the specification. This is the first instance of this invention that is unrelated and unsupported by the original filing. Cancellation of the new matter is required.

Applicant's amendments/arguments filed March 4, 2009 have been considered but are deemed without merit since the applicant argues an invention lacking support in the specification and based entirely on new matter.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 8 and 28, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically it would unclear to one of ordinary skill in the art to understand the technical meaning of the claim limitation "obtaining an anti-forgery RFID tag of a type that is pre-programmed with an unalterable first number, where the unalterable first number is rarely the same number as unalterable first number in other anti-forgery RFID tags of the same type." The limitation is simply vague and ambiguous and fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 1, 5-11 and 19-20**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al U.S. Patent No. 6,226,619 in view of Coppersmith et al (hereinafter "Coppersmith") U.S. Patent No. 6,069,955

12. As per **claim 1,**, Halperin et al discloses a method for determining if an item is a fraudulent item, the method comprising the steps of:

obtaining by radio means a first number (small tag 2, figs. 1 and 2) associated with the item or item's packaging (fig. 1; col. 5, lines 55-65, which discloses "… number read from the tag …");

determining a second number that is printed on the item or item's packaging (fig.1; col. 5, line 55-col. 6, line 5, which discloses "serial number on the label"; a bar code label also may be provided with encrypted information relating to the bottle's (e.g., the item's) content, and masked so that the customer can only access it after buying the product, and then recheck the originality of the product using a personal computer in the case of public encryption); and

is a public key signature of the first number

utilizing a public-key cryptographic process and the first number to cryptographically verify the second number; and

determining the product's authenticity based on the verification (col. 2, lines 50-55, which discloses that "the item includes indicia … for comparism with a secret … designating authenticity"; col. 3, lines 5-15, which discloses that the customer can

participate by verifying that different items on shelves have different serial numbers; col. 5, lines 50-65).

13. What Halperin does not explicitly disclose is:

is a public key signature of the first number;

utilizing a public-key cryptographic process and the first number to cryptographically verify the second number. Halperin however discloses that that "the customer also can check that the serial number and the coded number in the tag are compatible using some public-key" and " …verifying … the number read from the tag with a number on the serial number on the label…."

14. Coppersmith discloses:

is a public key signature of the first number (col. 3, lines 30-60; col. 4, lines 1-35);

utilizing a public-key cryptographic process and the first number to cryptographically verify the second number (see figs. 1 and 2, which discloses coded and encrypted serial numbers labels which are attached to the item; see claim 1, which discloses that a second label associated with the product hidden from view containing a second encrypted version of said serial number using a second private key of a second private/public key pair …verifying a match to the said serial number..; col. 3, lines 30-60; col. 4, lines 1-35)

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Halperin and incorporate a method comprising utilizing a public-key cryptographic process and the first number to cryptographically verify the second number in view of the teachings of Coppersmith in

order to ensure adequate security of the item and in addition since the claimed invention is merely a combination of old and known elements and in the combination each element would have performed the same function as it separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

15. As per **claim 5**, Halperin et al further discloses the method wherein the step of determining the products authenticity comprises the step of associating the product with an authentic product if the signature is verified, otherwise associating the product with a forged product (fig. 1; col. 2, lines 50-55, which discloses that "the item includes indicia … for comparism with a secret … designating authenticity"; col. 4, lines 30-40, which discloses that "the customer verify … that the encrypted number carried by the tag corresponds to the unique serial number ", col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag"; col. 7, line 65-col. 8, line 10).

16. As per **claims 6 and 21**, Halperin et al further discloses a method of manufacturing a product in order to prevent forgery, the method comprising the steps of:

obtaining an anti-forgery RFID tag of a type that is pre-programmed with an unalterable first number, wherein the unalterable first number is rarely the same number as unalterable first numbers in other anti-forgery RFID tags of the same type (small tag 2, figs. 1 and 2)comprising a first number (fig. 1; col. 4, lines 5-15, which discloses that

"a tag is used that is preferably unique…that cannot be duplicated; col. 5, lines 55-65, which discloses "… number read from the tag …");

programming a second number into the anti-forgery RFID tag;

determining a third number that is a cryptographic signature over the first and second numbers;

affixing the anti-forgery RFID tag comprising first and second numbers to either the product or the packaging associated with the product (small tag 2 affixed to bottle, fig. 1) to either the product or the packaging associated with the product (fig. 1; col. 2, lines 45-55; col. 5, which discloses a tag 72 for being affixed to a high value item"); and

affixing the third number to either the product or the packaging associated with the product (label serial number 3, fig. 1) to either the product or the packaging associated with the product (fig. 1; label serial number affixed to the bottle).

17. What Halperin does not explicitly disclose is:

determining a second number utilizing the first number and a cryptographic process, wherein cryptographic verification of the second number insures the product's authenticity

18. Coppersmith discloses:

programming a second number into the anti-forgery RFID tag (see abstract);

determining a third number that is a cryptographic signature over the first and second numbers (see figs. 1 and 2, which discloses coded and encrypted serial numbers labels which are attached to the item; see claim 1, which discloses that a second label associated with the product hidden from view containing a second

encrypted version of said serial number using a second private key of a second private/public key pair …verifying a match to the said serial number..; col. 3, lines 30-60; col. 4, lines 1-35)

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Halperin and incorporate a method comprising programming a second number into the anti-forgery RFID tag; determining a third number that is a cryptographic signature over the first and second numbers in view of the teachings of Coppersmith in order to ensure adequate security of the item and in addition since the claimed invention is merely a combination of old and known elements and in the combination each element would have performed the same function as it separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

19. As per **claim 8**, Halperin et al failed to explicitly disclose the method wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging

Coppersmith discloses the method wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging (see figs. 1 and 2, which discloses coded and encrypted serial numbers labels which are attached to the item; see claim 1, which discloses that a second label associated

with the product hidden from view containing a second encrypted version of said serial number using a second private key of a second private/public key pair …verifying a match to the said serial number..; col. 3, lines 30-60; col. 4, lines 1-35)

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Halperin and incorporate a method wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging in view of the teachings of Coppersmith since the claimed invention is merely a combination of old and known elements and in the combination each element would have performed the same function as it separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

20. As per **claim 11**, Halperin et al discloses a method comprising the steps of:

obtaining an RFID tag comprising a first number (small tag 2, figs. 1 and 2) comprising a first number (col. 5, lines 55-65, which discloses "… number read from the tag …");

utilizing a private key and the first number to create a second number that is a cryptographic signature, such that cryptographic verification of the second number insures a product's authenticity; and

affixing the second number (serial number label 3, fig. 1) and the RFID tag (small tag 2, fig. 1) to the item or the item's packaging (see fig. 1; col. 2, lines 45-55; col. 5, which discloses a tag 72 for being affixed to a high value item").

21. What Halperin does not explicitly disclose is:

utilizing a private key and the first number to create a second number that is a cryptographic signature, such that cryptographic verification of the second number insures a product's authenticity

22. Coppersmith discloses

utilizing a private key and the first number to create a second number that is a cryptographic signature, such that cryptographic verification of the second number insures a product's authenticity (see figs. 1 and 2, which discloses coded and encrypted serial numbers labels which are attached to the item; see claim 1, which discloses that a second label associated with the product hidden from view containing a second encrypted version of said serial number using a second private key of a second private/public key pair …verifying a match to the said serial number..; col. 3, lines 30-60; col. 4, lines 1-35)

Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Halperin and incorporate a method further utilizing a private key and the first number to create a second number that is a cryptographic signature, such that cryptographic verification of the second number insures a product's authenticity in view of the teachings of Coppersmith in order to ensure adequate security of the item and in addition since the claimed invention is

merely a combination of old and known elements and in the combination each element would have performed the same function as it separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

23. As per **claims 19 and 20**, Halperin further discloses the method wherein a bar-code is used for rendering the second number that is printed on the item or item's packaging (col. 5, line 65-col. 6, line5, which discloses verifiifiable by scanning …of course a barcode label may be provided with encrypted information)

24. As per **claim 22**, Halperin further discloses the method further comprising the step of: verifying that the RFID is an anti-forgery RFID tag (see fig. 1).

25. As per **claim 23**, Halperin further discloses the method, wherein the verification comprises verifying one of a specific physical feature and a behavioral feature of the anti-forgery tag (col. 7, line 65-col. 8, line 10)

26. As per **claims 24 and 28**, Halperin further discloses the method further comprising the step of: verifying that the second number is associated with the item (see fig. 1).

27. As per **claim 25**, Halperin further discloses the method, wherein the verification is performed visually (see fig. 1; col. 7, line 65-col. 8, line 10).

28. As per **claim 26**, Halperin failed to explicitly disclose the method further comprising the step of:

verifying that the second number is an Electronic Product Code (EPC) of the item.

Coppersmith discloses the method further comprising the step of:

verifying that the second number is an Electronic Product Code (EPC) of the item (see fig. 2).

29. Accordingly it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Halperin and incorporate a method further comprising the step of: verifying that the second number is an Electronic Product Code (EPC) of the item in view of the teachings of Coppersmith in order to ensure proper identification of the product.

30. As per **claim 27**, Halperin further discloses the method, wherein the reading is performed by a bar code scanner (col. 2, lines 15-25).

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art ad are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Agwumezie whose number is **(571) 272-6838**. The examiner can normally be reached on Monday – Friday 8:00 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Calvin Hewitt can be reached on **(571) 272 – 6709**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charlie C Agwumezie/
Primary Examiner, Art Unit 3685
June 1, 2009